



SOCIETY OF ACTUARIES

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## All That Glitters Has Not Been Gold

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also always haunts many economists, is that if investors suddenly come to the realization that financial assets will no longer rise as they have in the past, or that asset values will even possibly decline, that they may begin to liquidate their financial assets which were a form of saving, and begin to spend, driving up inflation dramatically. Hence all the inflation that central bankers were expecting all these years that never came (because the inflation occurred in financial assets and was in a sense stored up as future spending) could suddenly be unleashed in a big flurry all at once. Such a big burst of inflation will be very hard to control, and gold would explode upwards.

Whatever the case, gold's day should come, as there is always an up and down for any investment. Its day will likely be tied to the time when currencies are no longer perceived as stable, which has certainly not been the case since the early 1980s. It is interesting to note that the U.S. currency has grown in popularity and acceptance in direct reverse correlation to gold since that time. In the future, if the U.S. economic environment takes a turn for the worst or inflation reemerges with a vengeance, and the euro cannot fill the U.S. dollar's shoes as a world currency of choice, then gold will once again shine. Until then however, the gold price appears to be atagnant to slightly down. Jewelry demand and mine shutdowns have helped to support the price, while central bank sales has depressed it.

*Nino Boezio, FSA, associate editor of this issue of Risks and Rewards, is a principal of Matheis Associates in Pickering, Ontario.*

## Stochastic Modeling for Segregated Fund/Variable Annuity Products

*by Craig Fowler*

The Canadian Institute of Actuaries (CIA), The Actuarial Foundation and the Society of Actuaries is sponsoring a symposium on stochastic modeling for segregated fund/variable annuity investment guarantees, September 13-14, 1999, at the Toronto Airport Hilton Hotel. The goal of the symposium will be to advance education and research in the area of stochastic modeling of investment returns in respect of the maturity and mortality guarantees offered on segregated fund and variable annuity products. While this conference is not intended to produce a 'silver bullet' with respect to reserving and capital for these products, it is hoped that this symposium helps move the profession towards a more consistent methodology in terms of model properties and assumptions.

Working groups in both Canada and the United States were commissioned by the CIA and American Academy of Actuaries to study the investment guarantees offered on the segregated fund and variable annuity products offered in their respective countries. Because of the similarities of the guarantees, there have been discussions between the two working groups. Last fall, the CIA working group published a research paper on "Financial Considerations of Segregated Fund Investment Guarantees." The paper stopped short of attempting to specify a stochastic approach given the wide array of stochastic models. The working group advocated the completion of more intensive research activity aimed at building professional consensus on one or more stochastic approaches to modeling these features that can be widely used for risk management and valuation, and will produce consistent results for similar circumstances.

A subcommittee with representatives from the CIA, the Actuarial Foundation and the SOA has recently been formed. This subcommittee is

interested in work that has been done throughout the industry in the area of stochastic modeling and would like to have different models that are currently in use presented at the symposium. Also, this subcommittee has recently issued a call for papers asking for work to be submitted on the following three main topics: the distribution of long-term market returns, investment returns for individual funds and policyholder behavior/product features.

### Cash Prizes To Be Awarded for Research Efforts

The response to the call for papers has been extremely positive and several industry experts on the subject have come forward to share their research and help advance this field within the profession. In recognition of the importance of this research effort, the Investment Section Council has approved the provision of up to three prizes of \$2,000 (Can) each for the authors of the best papers at the symposium.

The program for the symposium is being mailed this month. Please contact Charles Hill at [chill@ymg.ca](mailto:chill@ymg.ca) for more information.

*Craig Fowler, FSA, is vice-president and chief actuary at ING Institutional Markets in Denver, Colorado.*

*Editor's Note: The symposium is an opportunity for actuaries to integrate the traditional work of actuarial modeling and long-term risk management with the financial engineering used in short-term derivative trading. We urge all actuaries practicing in this field to attend this symposium to share their knowledge and experience.*

